

# MONO-RAIL SYSTEM TO REVOLUTIONIZE RAILROAD TRAVEL

**May Relegate Steam Locomotives  
and Heavy Coaches to the  
Scrap Heap.**

## FINANCIAL GIANTS ARE INTERESTED

**Men of Millions Stand Ready to Test Practicality  
of Scheme of Howard Hansel Tunis—  
Speed of 150 Miles an Hour Is Among  
Promises Made.**

New York.—A young mechanical engineer, for a little more than three years, has been mystifying and amusing persons living near his father's home at Windsor Hill, just outside of Baltimore, by his experiments with a single rail railroad that he has constructed.

Recently all the newspapers in the city contained the authoritative announcement that John H. Starin, who has made millions in transportation enterprises, Charles Stewart Smith and Woodbury Langdon, all members of the Rapid Transit commission, were to back a company which will build this young engineer's single rail railroad from Jersey City to Newark.

Formal announcement of the incorporation of the new "mono-rail" company is expected soon to be made in Trenton, and this, it is announced, is to be followed in the next four or five weeks by the announcement of a deal by which the new company has acquired a franchise and terminal sites in the two cities—rights presumably owned by some existing company. Inside of a year, it is promised, mono-rail trains will be skimming across the marshes from Jersey City to Newark, realizing the newest slogan in modern rapid transit:

"To Newark in ten minutes."

Idea is Revolutionary.

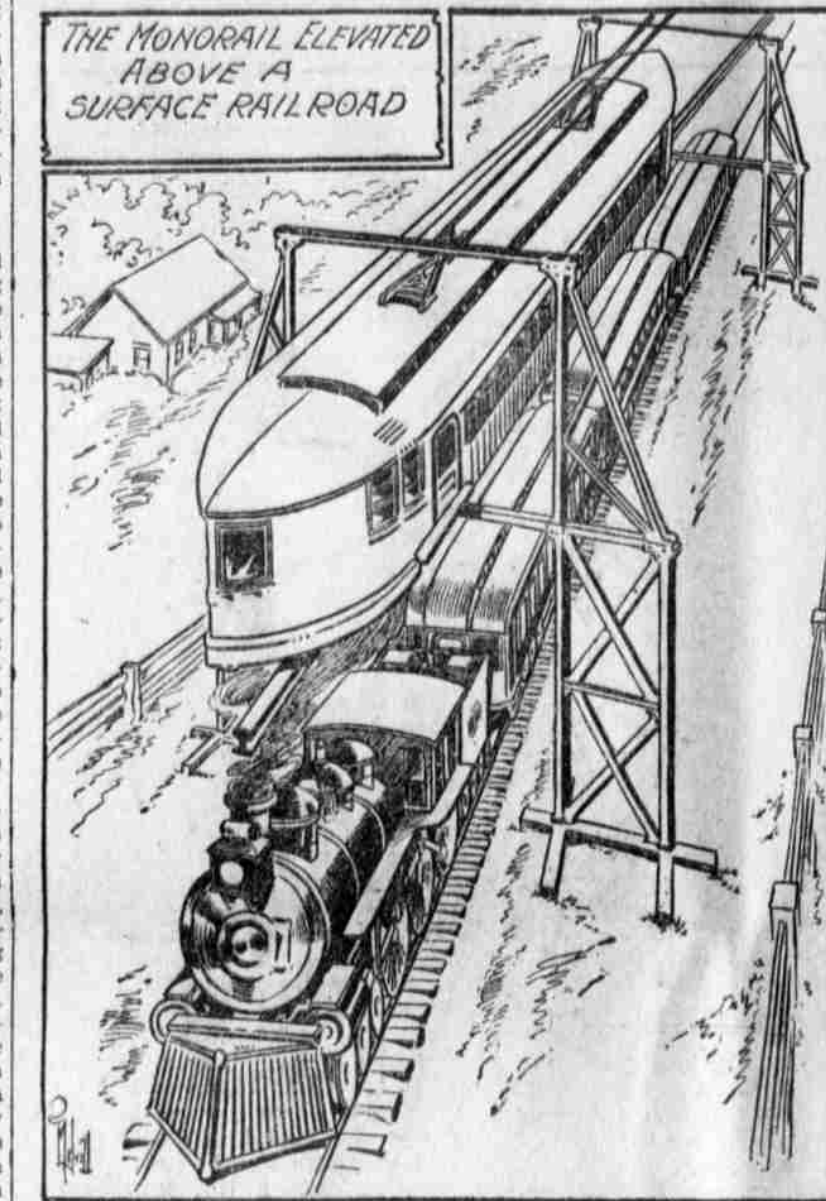
If what the young Baltimore engineer confidently claims for his "mono-rail" be true—and he has convinced such hard-headed business men as Starin, Langdon and Smith that it is true—modern railroading will be revolutionized by his invention. It will relegate to the scrap heap the two-track railroad, the ponderous, coal-burning locomotive and the big, heavy eight-wheeled cars along with the stage coach and the paddle-wheeled steamboat. His new invention, if his claims are well founded, is as far ahead of the locomotive-drawn train, running on two tracks, as the flying machine is ahead of the balloon.

That trains will run easily at a speed of 150 miles an hour on a single rail in perfect safety, without vibration and the swinging side-wise motion of the present day railroad trains, and that tracks and cars can be built and operated at less than half the cost

ment which constitutes the distinctive feature of the invention of the young Baltimore man, and marks its greatest difference from the other "mono-rail" inventions. The overhead truck arrangement, with the four wheels, horizontally set and working on the inside of the overhead tracks, steadies the car and gives it its equilibrium. Power is also transmitted from these overhead wires for the operation of the cars.

One of the claims made for the Tunis "mono-rail" is that trains running on it will be practically noiseless. One reason given for this is that the guide wheels on top, which run in the overhead rails, are of cast iron, oak and leather and are so constructed as to make but little noise. They also have ball-bearings and this makes tremendous speed possible. The guide wheels are only eight inches in diameter and less than two inches thick. Another feature of the car which contributes to its noiselessness is the use of the direct current motor.

Engineer Tunis claims that the only proper system of railroad construction is the single track, because the double tracks are in opposition to the laws of gravity, and make necessary tremendously heavy cars. In his cars, Tunis explains, the bottom will be but 20 inches above the rail, and thus the center of gravity will be very low. The cars will have an almost perfect equilibrium, even



without being steadied by the overhead arrangement.

Cars Will Be Light.

Then, the cars are to be extremely light as compared with modern railroad cars—another element contributing to high speed. They will not weigh over seven tons.

Right here, in the two points just referred to, is the great advantage claimed by the backers of Engineer Tunis's system. Mr. Burrows in describing its advantages said that engineers had long recognized the fact that the great sprawling cars of the present, with their immense weight, are theoretically wrong.

"These big heavy cars are in effect houses set upon wheels," he said. "These wheels are placed four feet eight and one-half inches apart, with the center of gravity between them. The first and greatest essential to the whole system is that the cars must be heavy in order to remain on the tracks. Here, then, is the whole key to railroad inefficiency, that in a system whose only excuse for being is the ability to make speed the principal requisite should be great weight. In short, having to overcome gravitation, they start out by making it impossible. It requires no great mechanical ability to discover that a one-rail track is greatly superior to a two-rail track, if one goes no further than to see that one wheel will only have half the obstacles to overcome that two have."

**Economy in Operation.**  
Still another claim for the mono-rail trains is that they can be operated very much cheaper because of the economy in power it is possible to realize. According to railroad men, from 15 to 30 per cent. of the power used to operate trains is lost in the sidewise, swinging motion of cars. The Tunis mono-rail trains, it is declared, have a straight ahead motion, without any side-swing.

Nothing which ever moved on wheels can equal the speed claimed for the Tunis "mono-rail" trains. One hundred miles an hour is an easy matter, and the cars can be pushed to 150 miles without any difficulty. And, while the cars are going at this speed, it is claimed that the motion is so gentle that passengers are barely aware of the fact that they are moving. The jerky, swinging motion of two-rail trains is declared to be entirely absent.

As if all this were not enough to

complete the eclipse of the present system of railroad construction and establish the "mono-rail" as pre-eminent, still another tremendous advantage is claimed, and this is the most important of all—the matter of cost.

It is the cheapness of the cost of the system, which, if it is what is claimed for it, threatens to revolutionize railroad construction.

**Means Immense Saving.**  
According to the estimates made for the New York backers of the project, a four-track, elevated line, such as it is proposed to build between Jersey City and Newark, can be constructed for \$75,000 per mile. To build a four-track elevated road, similar to the present elevated system in this city, would cost \$900,000 per mile. This does not include the cost of power or equipment—only the structure and tracks.

The projectors of the new enterprise figure upon building the eight miles of elevated track between Jersey City and Newark for \$2,000,000. To build the ordinary type of elevated road, with four tracks, would cost between \$7,000,000 and \$8,000,000. It is this cheapness of cost which inspires the backers of the enterprise to hope that they will reap tremendous profits, and that the success of this initial road between the two Jersey cities will be followed quickly by

## FEUDS IN FAMILIES

SOURCES OF EMBARRASSMENT  
TO QUESTS.

Temptation to Sympathize with Ap  
parent Victim Is Diplomacy  
Avoid—Where Diplomacy  
Is Called For.

Few things are more embarrassing than to find one's self a guest in a dis-  
united household.

One must be gifted with wonderful tact and prudence to be able to avoid taking sides and making remarks which embroil one with all parties, for no matter how much they fight among themselves they are certain to make a common cause against an outsider.

After one has been out a few times they learn not to put their fingers in between the blades of the scissors.

Yet, how persistent is the temptation to sympathize with an apparent victim and mingle our own indignation with the outbursts of which we are made the confidant.

It may be the wife who is at odds by the conduct of a son-in-law, or the younger sister in a jealous rage against her seniors.

Almost surely it is one of the women of the family who pours out an account of her sufferings in the guest's ears.

Men are not above making a breakfast table scene by a casual utterance of slurring observation upon women in general, which particular women are bound to take up and respond to with all the enthusiasm of self-defense. But these caustic remarks are usually thrown off carelessly and without the betrayal of wounded feelings, which characterizes the irony of women.

It is scarcely possible to be an inmate of a woman's family where she is at variance with her husband, and remain strictly neutral and impassive without convincing her that you are heartless and absolutely unsympathetic.

One finds it safest to express admiration and wonder at the patience and long suffering of the woman who thus craves your sympathy, mingled with dextrous little compliments for good qualities in the offending man whom she would be ready to tear your eyes out for abusing.

After all, diplomacy is the course most nearly approaching justice, for in family feuds there is invariably something to be said in favor of all parties.

## A NOVEL FAN BAG.

Provides Against Loss of This Very  
Useful Article.

The number of lost and strayed fans which are generally found in the ballroom after a dance tells its own tale, and surely points a moral for those who are anxious not to buy a new fan after every party. Some such little fan bag as the one which we illustrate might save many a fan from an untimely end. It would be useful, too, for taking to the theater, or when traveling by train, in evening dress, from the suburbs.

The shape of the bag is so simple that the sketch does not require much



In the way of explanation, the bag might be made in brocade, with a satin lining, edged with silk cord in some shade to harmonize, and finished with a long loop of satin ribbon which can easily be twisted round the wrist, or suspended from the waist. A little sachet powder scattered between the brocade and the lining would be an improvement to a bag of this description, and would be just enough to give a delicate perfume to the fan.

## Black for Summer.

It may comfort women to know who live in this weather-vane town to know that light colors for street wear won't be as fashionable this summer as in the last heated term. A fashionable decree just issued in Paris is to the effect that black again will have its innings, and the thin black gown will figure largely in the summer show by sea and shore.

Black will be regarded as "smarter" than the light-colored mushroom millinery, with its burden of unnameable flowers.—Chicago American.

## BOWSER HAS SCHEME

Finds Man Who Has Invented  
Way to Reduce Coal Bills.

MAKES A TEST IN FURNACE.

Formula Fails to Bring About the De-  
sired Result, and Experiment Ends  
in a Fight—Mrs. B. Tries to Console  
Disheartened Husband.

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At 2 o'clock the other afternoon a strange man called at the Bowser house and asked if he was home yet and when answered in the negative said that he had an appointment with him for that hour and would wait. While he sat down on the front steps Mrs. Bowser nudged her brains as to what he might want. He was a long, lean, lank and solemn looking man. He seemed a man who had been disappointed in the world and had lost all hope. She couldn't think he was a man who had a cow or a balloon to sell.

The mystery had lasted only a quarter of an hour, when Mr. Bowser came home. He was walking fast and had a business air about him. After saying a few words to the man on the steps he entered the house, and of course Mrs. Bowser asked him what was going to happen.

"The man out on the steps is a Mr. Rasher," he replied. "I have been talking with him all the forenoon. He is the man who invented the 'catch anything' trap. It will catch anything from a bug to an elephant, and the man who beat him out of his patent has made a million dollars out of it."

"Is that why he looks so down in the mouth?" asked Mrs. Bowser.

He Was an Inventor.

"That and other things. He is the inventor of the double ended nursing bottle for twins. He brought out the machine to throw cats off the fence."



A SORT OF EXPLOSION BLEW THE FURNACE DOOR OPEN.

He invented pastboard sofas for shoes, and all in all he has brought out a dozen good things. He has trusted men, and they have robbed him of the fruits of his labor."

"And has he now invented an India rubber barrel or something else he wants you to take up with him?"

"Don't try to be sarcastic at this early stage of the game. Mr. Rasher dropped into the office this morning to see me on business. From the first instant he set eyes on me he felt that he could trust me. As he told me later, I have a frank and innocent countenance that is an index of my soul. After we had talked for an hour he told me that he was the inventor of a patent fuel that is going to make millions of dollars for some one."

"But there are half a dozen men making the same claim," protested Mrs. Bowser, "and as far as we know nothing great has come of it."

"Never you mind about the half dozen men and their claims. Their names are not Rasher. This man knows what he is about. When he says that he has a fuel that is going to revolutionize the world and drive 10,000 coal dealers to suicide you can get ready for something to happen. What he wants is money enough to get this patent. He wants me to advance the amount and will give me half his rights. I am not to advance a cent until after I have satisfied myself that the fuel is all right. Have you any fault to find with that arrangement?"

"Why, no, but I hope you will be thoroughly satisfied before you go into such a thing."

## Considered Him Honest.

"Certainly I shall. Mrs. Bowser, I am no ten-year-old boy. I think the man is honest and sincere, but I shall still have an eye on him. If he's shamming he'll find a man as smart as he is."

"But how are you going to find out about the fuel?"

"We are going to burn some in the furnace. It's pretty hot weather, but I guess we can stand it for an hour or so. I shall insist on the severest tests."

Mrs. Bowser thought there might be something in it and raised no further objections. She had read that others were experimenting and why not Mr. Bowser? While he was getting into an old suit of clothes Mr. Rasher disappeared for a few minutes. Then a horse and wagon drove up with three or four bags full of something that were carried down cellar. Then there was a mixture. As near as Mr. Bowser could determine, for Mr. Rasher wasn't giving things away yet, the bags contained ashes, sand and lime.

When they had been mixed together a powder was sprinkled over the heap, and it was dampened with water. Three or four old boxes were knocked to pieces and a fire started in the furnace, and when there was a good blaze going the inventor said:

"We will now shovel the mixture in and you will see something wonderful."

The wonderful thing occurred two minutes later. A sort of explosion blew the furnace door open, and a great puff of acid smoke went floating all through the house. At the same moment all the fire in the furnace went out, and Mrs. Bowser called from the head of the cellar stairs:

"Mr. Bowser, what on earth is happening down there?"

"Nothing. It was just a back draft from the furnace, probably by a rat's nest in the chimney. There is no call for you to get excited."

"It may be that I didn't get in the right powder," explained Mr. Rasher as he peered into the furnace. "No; I think I didn't. If you will hand me \$2 I will go and get the other thing."

"But, man, don't you know the proper ingredients?" asked Mr. Bowser. "Haven't you got them written down?"

"No. I might lose the memoranda, you see. I want to be careful this time. Being a little excited, I may have asked for the wrong powder."

He took the money and was gone ten minutes and then came back with a five cent packet of Rochelle salts in his hand and let Mr. Bowser see the label on it to show that he trusted him. He didn't return the change from the bill. The fire was rekindled, the salts sprinkled on the heap, and after ten minutes a shovelful of the mixture was dumped in, with the observation:

## Must Close All Drafts.

"We now have sufficient fuel in the furnace to last for a week. As soon as things get redhot we must close all the drafts."

But things did not get redhot. There was a sputtering and a steaming inside the furnace for two or three minutes, and then there seemed to be nothing further doing. Mr. Bowser and Mr. Rasher sat on their boxes in silence and expectation, and the gas meter uttered a sort of wail and registered another 500 feet. Finally the inventor arose, tipped over to the furnace and opened the door.

All inside was blackness and darkness. There was no redhotness—not by a jugful.

"The thing don't seem to pan out," said Mr. Bowser in hard tones.

"No, but I see the reason. I should have burned a certain powder to clear the flues of dust first. In my haste and anxiety I forgot that. If you will give me \$3 I will run over to the drug store."

"What's the name of the powder?"

"Excuse me, but I will tell you later on. Once the dust is out of the flues all will be well. You might be shaking the stuff out while I am gone."

Mr. Bowser gave up grudgingly. He was losing faith in Mr. Rasher and dreading Mrs. Bowser's words and looks. The inventor departed, visited the drug store and a saloon and returned after awhile with a lump of something in his hand.

"I thought you went for powder?" queried Mr. Bowser.

## Meant a Lump.

"Did I say powder? I often say that when I mean lump. We will be all right now."

"Isn't there some change coming to me?"

"I believe so, but I can't stop just now. In with your paper and kindlings."

When a fire had been lighted once more the powder was thrown in, and the men stood back. They needn't have done so. That lump of something was only chalk and had no idea of exploding. After two minutes some more of the patent fuel was shoveled in, and Mr. Rasher smiled and said:

"There won't be any more disappointments. Hear the furnace roar?"

But there was no roar. There came a sound like a lean woman trying lean bacon over a corn-cob fire, and then there was a flicker, and all was as still as the grave. Mr. Bowser looked into the furnace to find the same old blackness. As he turned to ask Mr. Rasher what it all meant, he meant by it that the inventor made for the stairs. There was a yell, and Mr. Bowser made after him. The fleeing man ran through the kitchen hall and out of the area gate, but before he could leap the front gate Mr. Bowser caught him. Fifteen minutes later as Mrs. Bowser was putting salt on a skinned nose and washing a bitten ear she quietly observed:

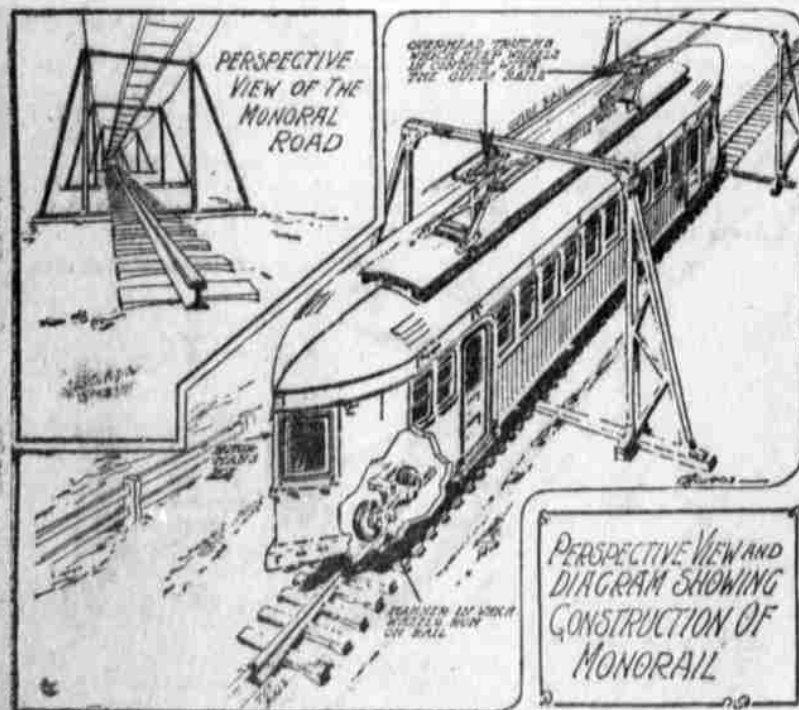
"Never mind, dear. You have got a shovelful of sand and lime left down cellar, and we will try and get along some way until you can invest in a new burglar alarm and make \$1,000,000."

M. QUAD.

## Can't Always Tell.



She—I thought you said you would ever come between us?  
He—Well, you can't tell what happens on a pluck.—Optical



PERSPECTIVE VIEW OF THE MONORAIL ROAD.

of the present equipment—this, in brief, is the young engineer's claim.

That he can do what he says is not only believed by a practical transportation man of 40 years' experience like John H. Starin but by a big firm in Wall street which has agreed to underwrite all the bonds required to put through the Jersey City to Newark "mono-rail," and by scores of others who have investigated the new plant and are anxious to become financially interested in it.

## First Practical Test.

Starting on a short half-mile stretch of track inside the exposition grounds at Jamestown, the first practical test of the new road was made in public, although for three years the young inventor, Howard Hansel Tunis, has been experimenting in the suburbs of Baltimore.

More than a dozen noted engineers, among them Chief Engineer George S. Rice, of the Rapid Transit commission, have investigated the new invention and have pronounced it practical. Some of them assert that it will revolutionize modern railroading because of the tremendous speed which it

It is this overhead truck arrange-